

## **REMARKS**

Claims 27-39 have been canceled without prejudice or disclaimer. Claims 40-86 have been added and therefore are pending in the present application. Claims 40-86 are supported throughout the specification, including the original claims.

It is respectfully submitted that the present amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

### **I. Informalities**

The Office objected to the disclosure because the specification recites amino acid sequences without providing sequence identifiers. The specification has been amended to provide SEQ ID NOS for the sequences disclosed therein.

The Office also stated that one of the sequences, G-X<sub>1</sub>-X<sub>2</sub>-X<sub>3</sub>-R-X<sub>4</sub>-X<sub>5</sub>-X<sub>6</sub>-K-I-X<sub>7</sub>-X<sub>8</sub>-K-X<sub>9</sub>-X<sub>10</sub>-K-X<sub>11</sub>-X<sub>12</sub>-Z is not included in the Sequence Listing. This is respectfully traversed.

This sequence is a fragment of SEQ ID NO: 1 and therefore is not required to be listed separately in the sequence listing.

For the foregoing reasons, Applicants submit that the claims overcome this objection. Applicants respectfully request reconsideration and withdrawal of the objection.

### **II. The Objection to Claim 28**

The Office objected to claim 28 because the claim recites an amino acid sequence without providing a sequence identifier. Claim 28 has been canceled without prejudice or disclaimer. Therefore, this objection is rendered moot.

### **III. The Rejection of Claims 28=39 under 35 U.S.C. 101**

Claims 27-38 are rejected under 35 U.S.C. 101 as directed to non-statutory subject matter. Claims 27-39 have been rewritten as claims 40-86 to address this rejection. Applicants therefore submit that this rejection has been overcome.

### **IV. The Rejection of Claims 28-31 under 35 U.S.C. 112**

Claims 28-31 are rejected under 35 U.S.C. 112 as failing to comply with the written description requirement. This rejection is respectfully traversed.

As set forth in Federal Circuit decisions, a specification complies with the written description requirement if it provides “a precise definition, such as by structure, formula, chemical name, or

physical properties of the claimed subject matter sufficient to distinguish it from other materials.” See, e.g., *University of California v. Eli Lilly and Co.*, 43 U.S.P.Q.2d 1398, 1404 (Fed. Cir. 1997); *Enzo Biochem v. Gen-Probe Inc.*, 63 U.S.P.Q.2d 1609, 1613 (Fed. Cir. 2002). In fact, “[a] description of a genus of cDNAs may be achieved by means of a recitation of a representative number of cDNAs, defined by nucleotide sequence, falling within the scope of the genus or of a recitation of structural features common to the members of the genus, which features constitute a substantial portion of the genus.” *Eli Lilly and Co.*, 43 U.S.P.Q.2d at 1406. The test is not whether one of ordinary skill in the art envisions all of the claimed subject matter, as suggested in the Office Action.

Moreover, “[i]n claims involving chemical materials, generic formulae usually indicate with specificity what the generic claims encompass. One skilled in the art can distinguish such a formula from others and can identify many of the species that the claims encompass. Accordingly, such a formula is normally an adequate description of the claimed genus.” *Eli Lilly and Co.*, 43 U.S.P.Q.2d at 1406.

Applicants submit that the specification provides an adequate written description of the claimed invention. The claimed invention is directed to antimicrobial peptides comprising an amino acid sequence of SEQ ID NO: 1. The amino acid sequence of SEQ ID NO: 1 recited in claim 40 is a sequence of 29 amino acids of which 11 are defined by a specific amino acid and 18 are defined by a group of amino acids. Thus, the genus is defined by a specific formula, which distinguishes the claimed polypeptides from others. Moreover, the formula recites structural features commonly possessed by members of the genus; and one skilled in the art can visualize and recognize the identity of each species of the genus.

The specification also discloses the amino acid sequences of numerous polypeptides of the present invention (SEQ ID NOs: 3-57 and 59-69), which are a representative number of the genus of the present invention.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 112. Applicants respectfully request reconsideration and withdrawal of the rejection.

## **V. The Rejection of Claim 28 under 35 U.S.C. 112**

Claim 28 is rejected under 35 U.S.C. 112 as being indefinite. Specifically, the Office Action stated that the claim lacked an essential step. Claim 28 has been rewritten as claims 59 and 79 to address this rejection. Applicants therefore submit that this rejection has been overcome.

## **VI. The Rejection of Claim 28 under 35 U.S.C. 103**

Claim 28 is rejected under 35 U.S.C. 102(b) as being anticipated by Tossi et al. (*Eur. J. Biochem.* 250: 549-558 (1997)). This rejection is respectfully traversed.

According to the Office, Tossi et al. disclose an antimicrobial peptide with the amino acid sequence of GLLRRLRKKGIFKKYG.

However, Tossi et al. do not disclose or suggest a polypeptide having antimicrobial activity comprising the amino acid sequence of SEQ ID NO: 1, as recited in claim 40 or claim 60, or comprising the amino acid sequence of SEQ ID NO: 9, as recited in claim 80.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 102. Applicants respectfully request reconsideration and withdrawal of the rejection.

## **VII. Conclusion**

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

All required fees were charged to Novozymes North America, Inc.'s Deposit Account No. 50-1701 at the time of electronic filing. The USPTO is authorized to charge this Deposit Account should any additional fees be due.

Respectfully submitted,

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